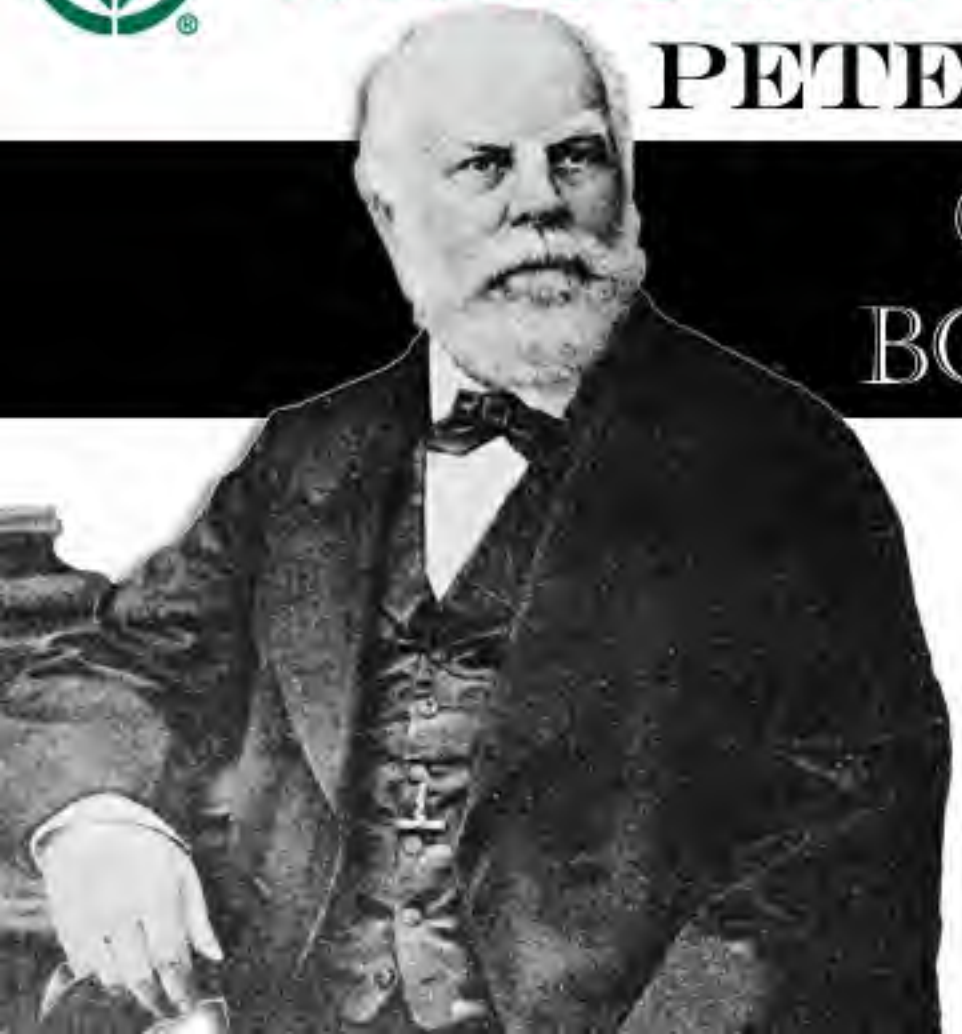
Missouri Botanical Garden
Peter H. Raven Library

George Engelmann Botanical Notebooks



Pagination Note:
Since many of the items lack a specific page number, the page number displayed online refers to the sequentially created number each item was given upon cataloging the materials.

16.17

2 Tab R. Pampana

5 Tab R. camboidis

-76-382

Pesiph. Durb

11359

Missouri Botanical Garden
George Engelmann Papers

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
Missouri Botanical Garden

Pinus Parryana Leiz. Oct 13 1875

×30

Oct 19 74

May 6 1878

×30

hypodm well developed
in Bark, very little on
sides — Ducts dorsal, surrounded
by hypoderm, no hyp within sheath

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11360

ALEX. LEITCH,

APOTHECARY & PHARMACEUTIST,

Marble Building Cor. Fourth & Olive Sts. St. Louis, Mo.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus Parryana

seed Mountains 40 miles S of east of San Diego abt 3000 alt.

June 1850. Dr Parry

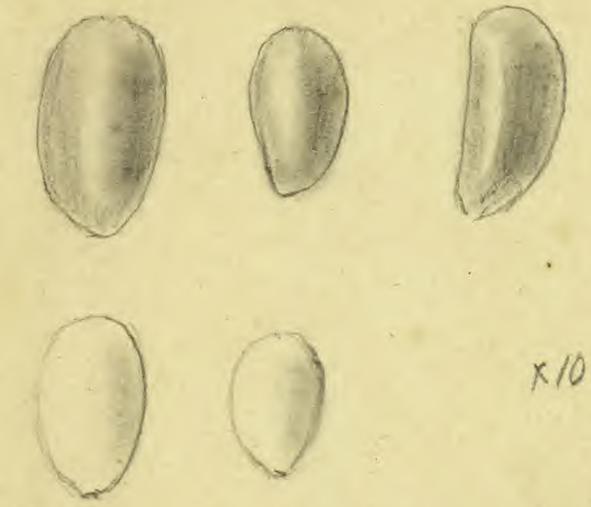
Octob 1863

South of the Boundary

Strobiles ripe but aments yet undeveloped

x4

x10



albumen

bract outside

bract with amt inside

bract inside

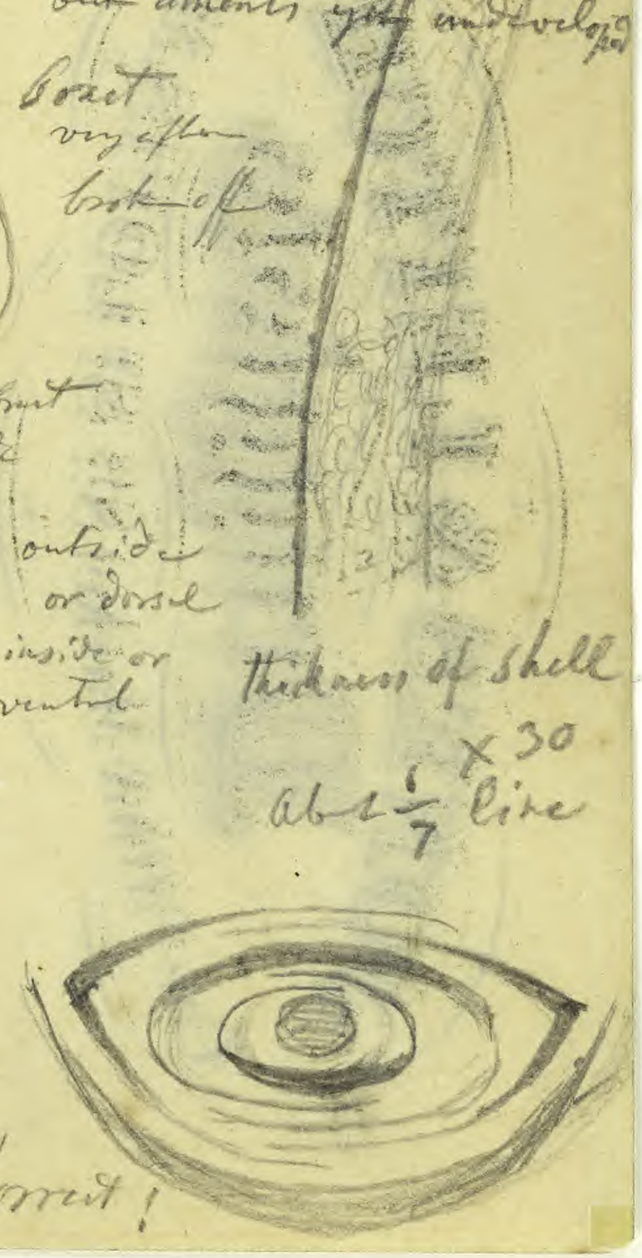
a b

b a

lateral

a outside or dorsal

b. inside or ventral



thickness of shell x30

Abt 1/7 line

8 cotyl 1

4

2

arrestivation of involucral scales correct!

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11361

JONES & LEITCH
Druggists
Cor. Fifth & Market Sts. St. LOUIS, Mo.

J. McKittrick & Co. 56 N. Main St.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus cembroides
Sabillo

Nov 1862

Dr Gregg 1847

another scale

seat of a pair of regular seeds, and their scale

marks of dehiscence (only artificial) of the shell

scale

×4

wings of seed usually attached to scale

5 Cotyledons 1/8 arrangement

11–12 Cotyledons in their seed

GEORGE ENGELMANN MEMORIAL
MISSOURI BOTANICAL GARDEN
ST. LOUIS

11362

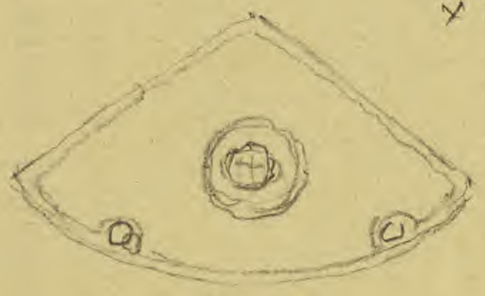
MISSOURI BOTANICAL
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pin Cambria 1

May 5 1878

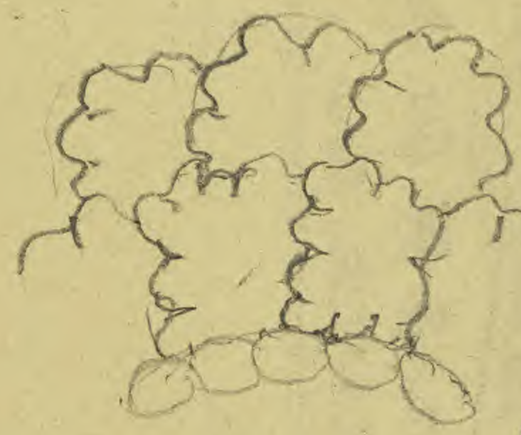
West Texas



× 30

hypostom ekt around,
also around ducts,
but not quite constant
and continuous

× 30



× 150

pyramidal cells

sheath

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11363

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

No. ..... *Date,* *187*

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,
No. 3003 Locust Street.

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

P. cembroides Oct 19 1875

Oct 19 1875

Dr Gregg

Sellville 1848

× 30

lvs 0.9 – 1.1 mm wide

Cult Berlin

3-leaved

2-leaved

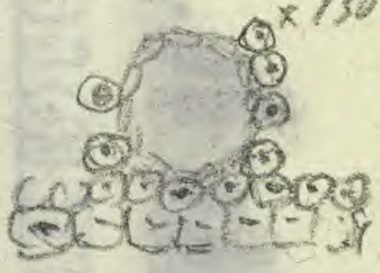
6/5 78

Berlin

May 6 1878

few or often no hypodermis over duct!

Gregg S. Ville



Ehrenberg

hypodermis principally on back and around dorsal ducts very little on ventral or upper angle and sides none within sheath

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11364

Alex. Leitch,

APOTHECARY & CHEMIST,

Cor. 4th & Olive Sts., St. Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

May 19 1878

P. cumbensis

San Luis Potosi Dr Parry April 78

0.5 m m wide

× 30

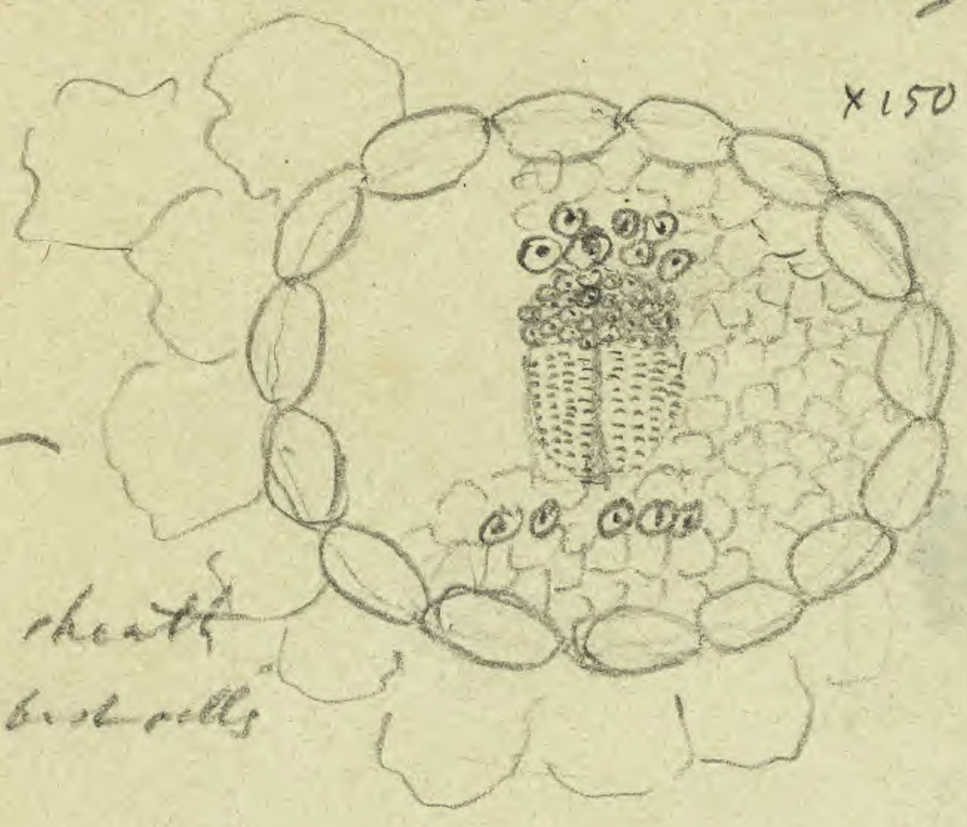
ducts surrounded by hypoderm

peripheral

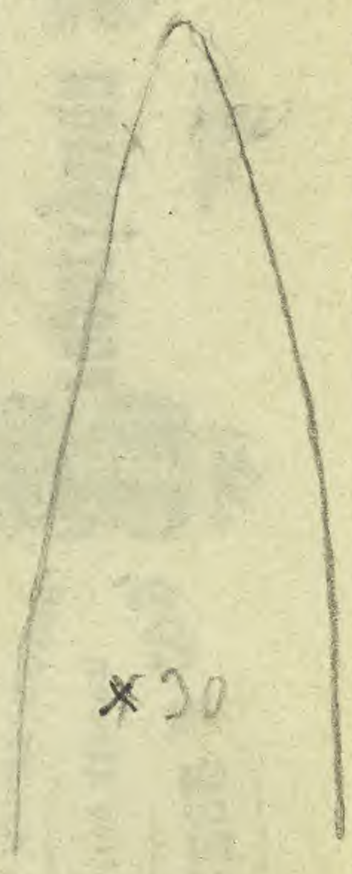
some hypoderm cells within sheath

wood cells much fewer than bast cells

× 150



× 30



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11365

GEO. B. FRESE & CO'S,

No. 3005 Olive Street,

Near Garrison Av. ST. LOUIS.

Prescription Store,

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Prescribed by

DR. GEO. ENGELMANN,

N. W. Cor. Garrison Ave. & Locust St.,

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus cembroides.

Oct 6 21st 1863

×4

Thickness of shell ×30
abc 1/3 line

Cotyles 1: 8
1. 9
3. 10
2 11
1 12
Cotyles 8 examined

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11366

ALEX. LEITCH,

APOTHECARY AND CHEMIST,

Marble Building, Cor. Fourth and Olive Streets,

ST. LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

5 Tab 18

P. edulis

371-5

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

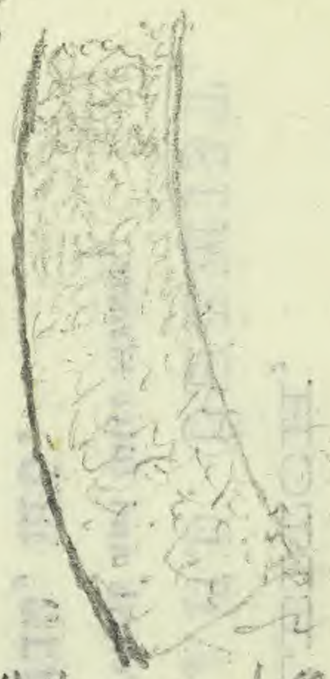
11367

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus edulis
Santa Fe gracilipes 1846

Oct 6 1863



thickness of shell x 30
about $\frac{1}{6} = \frac{1}{54}$ line

x 4

1 with 7.
2 — 8
1 — 9
3 — 10 Cotyl.
7 spec

7-10 Cotyl

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11368

ALEX. LEITCH,

APOTHECARY AND CHEMIST,

Marble Building, Cor. Fourth and Olive Streets,

ST. LOUIS, MO.

MISSOURI BOTAN.
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

axis of ♂ inflor. 6–9 ''' long
filaments oval, rounded

Pinus edulis
Pikes Peak, & Parry 1862

Octob 23 1863

×4.5

0.029

×4

pubescence
or rather base of
bracts coming off
bracts as well as
involucel scales
whitish – not fringed

×4

young ants
with the Gnat. Feeders

×10

×4

×10

upper most anther
with longest beak
0.027 – 0.029

Pollen mean 0.029

0.027 – 0.031

Pikes Peak, Parry

0.027 – 0.030

Santa Fe Fowler

Cimarron Wright

wrinkles

Fowler & Parry

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11369

ALEX. LEITCH,

APOTHECARY AND CHEMIST,

Marble Building, Cor. Fourth and Olive Streets,

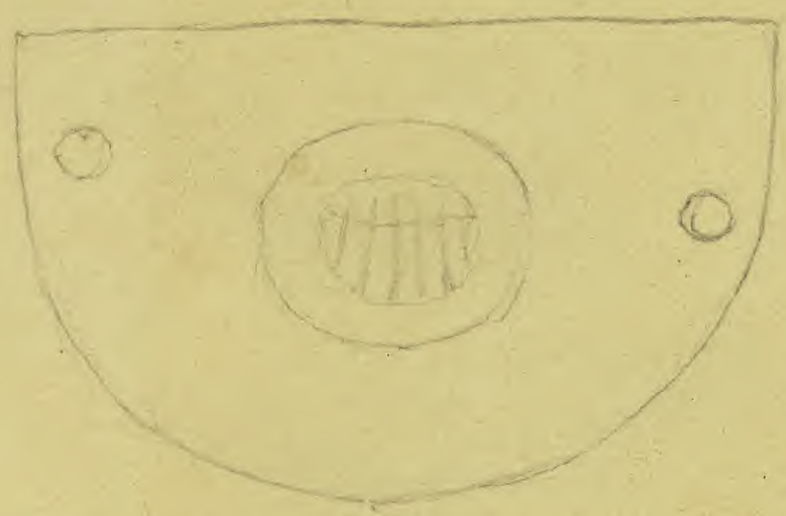
ST. LOUIS, MO.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus edulis
Colorado 1870

April 29 1870



leaves mostly ± 2
rarely 3 Three
Thick, with medi-
ided vascular bund
Cigneous part small

leaves 1.7 mm wide

pale margins indistinctly crenulate or entire

11370

HOELKE BROS.,

[Successors to SAMUEL D. HENDEL,]

Apothecaries & Chemists,

S. W. Corner of 6th and Market Streets,

ST. LOUIS, MO.

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 cm 1 2 3 4 5 6 7 8 9 10
Copyright reserved
MISSOURI BOTANICAL GARDEN

Pinus edulis Oct. 19 1875

Fendler, Santa Fe 1847

×30

Cones 1.5 cm wide

0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11371

Alex. Leitch,

APOTHECARY & CHEMIST,

Cor. 4th & Olive Sts., St. Louis.

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

0 cm 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN

May 6 1878

Pinus edulis

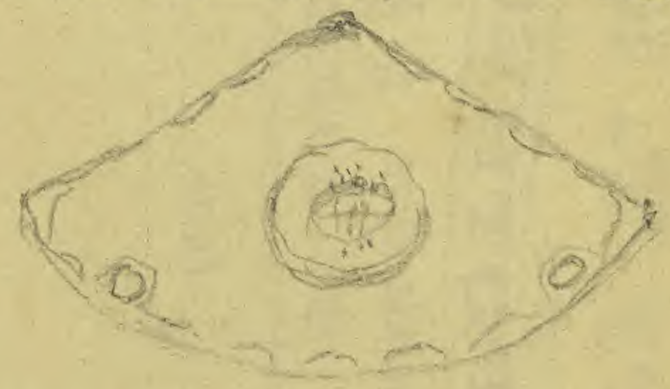
Beaver Mountains, Utah & Pany 1874

× 30

ordinary for
some hypoderm cells
within sheath

leaves 1.4 mm wide

writings, Santa Fe. 1846
is exactly the same with
the same hypoderm cells in
sheath. — the 3 leaved form
often something as below



0 1 2 3 4 5 6 7 8 9 10
cm
copyright reserved
MISSOURI BOTANICAL GARDEN

11372

Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

No. ..... *Date,* *187*

℞

MISSOURI BOTANICAL GARDEN
GEORGE ENGELMANN PAPERS

Geo. Engelmann, M. D.,
No. 3003 Locust Street.

cm 0 1 2 3 4 5 6 7 8 9 10
copyright reserved
MISSOURI BOTANICAL GARDEN